

November 13, 2002

RE: Lau Industries Rochester Plant
TO: Interested Parties / Applicant

049-15736-00024

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision - Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures

November 13, 2002

Mr. Scott Marquardt
Lau Industries Rochester Plant
510 State Rd. 25 North
Rochester, Indiana 46975

Re: **Exempt Operation Status**
049-15736-00024

Dear Mr. Marquardt:

The application from Lau Industries Rochester Plant, received on June 13, 2002, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following operation of a blower fan parts and housing manufacturing source located at 510 State Rd. 25 North, Rochester, Indiana 46975, is classified as exempt from air pollution permit requirements:

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) dip coating tank, identified as E-Coat Dip Coater, installed in 1996, exhausted through stack PR1, capacity: 150 blower fan parts per hour.
- (b) One (1) manual touch up paint spray booth, identified as Manual Spray Booth, equipped with HVLP spray applicators, and dry filters for PM overspray control, installed in 1996, exhausted through stack MT1, capacity: 12 blower fan parts per hour.
- (c) One (1) natural gas fired Dip Coater drying oven, identified as OV1, installed in 1996, exhausted to stack OB1, rated at: 5.00 million British thermal units per hour.
- (d) Three (3) ancillary deionized water rinse tanks, installed in 1996, exhausted to stack RO1.
- (e) One (1) spot welding process, containing two (2) welding stations, identified as 2X and 7X, installed in 1996. Station 2X consists of seven (7) spot welders and station 7X consists of two (2) spot welders. These welding operations do not use any wire. Spot welding uses heat to bond metal together.
- (f) One (1) forced air furnace, identified as MU-E, installed in September 1999, rated at: 1.87 million British thermal units per hour.
- (g) One (1) forced air furnace, identified as MU-W, installed in September 1999, rated at: 1.87 million British thermal units per hour.
- (h) One (1) forced air furnace, identified as MU-O, installed in September 1999, rated at: 0.18 million British thermal units per hour.

- (i) One MIG weld process, containing three (3) MIG welding stations, identified as 2x-mig, installed in March 2002, capacity: 1.049 pounds of metal wire per hour, each.
- (j) One (1) natural gas fired Maxon water heater, identified as WH-1, installed in 1996, exhausted to stack OB1, rated at 3.0 million British thermal units per hour.
- (k) One (1) natural gas fired Maxon water heater, identified as WH-2, installed in 1996, exhausted to stack OB1, rated at 3.8 million British thermal units per hour.

The following conditions are applicable to these emission units:

Emission Limitations and Standards

1. 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies)

- (a) Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), the particulate (PM) from the one (1) manual touch up paint spray booth, identified as Manual Spray Booth, shall be controlled by dry particulate filters, and the control device shall be operated in accordance with manufacturer's specifications.
- (b) The particulate (PM) from the three (3) MIG welding stations, identified as 2x-mig, shall be limited to 4.92 pounds of PM per hour at a process weight rate of 2,625 pounds per hour using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

- (c) Any change or modification which will cause the potential to emit PM to increase to greater than 1.00 pound per hour, equivalent to 4.38 tons per year, from the three (3) MIG welding stations shall obtain prior approval from the IDEM, OAQ. This will ensure that the potential to emit PM from the entire source remains below five (5) tons per year.

2. 326 IAC 8-2-9 (Miscellaneous Metal Coating)

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating applied to the metal fan parts at the one (1) dip coating tank, identified as E-Coat Dip Coater, shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for extreme performance coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

- (b) The VOC applied to the applicators of the manual touch up paint spray booth, identified as Manual Spray Booth, installed in 1996, shall be limited to less than fifteen (15) pounds per day. Therefore, the requirements of 326 IAC 8-2-9 are not applicable. Compliance with this limit shall be demonstrated within 30 days of the end of each month based on the total

volatile organic compound usage for the day.

Record Keeping and Reporting Requirements

3. General Record Keeping Requirements

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented when operation begins.

4. Record Keeping Requirements

- (a) To document compliance with Condition 2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition 2.
- (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The cleanup solvent usage for each day;
 - (4) The total VOC usage for each day; and
 - (5) The weight of VOCs emitted for each compliance period.
- (b) All records shall be maintained in accordance with Condition 3 - General Record Keeping Requirements, of this exemption.

This exemption is the third air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

CJF/MES

cc: File - Fulton County
Air Compliance - Rick Reynolds
Contract Management - Duane Van Laningham
Air Programs Section - Michele Boner

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	Lau Industries Rochester Plant
Source Location:	510 State Rd. 25 North, Rochester, Indiana 46975
County:	Fulton
SIC Code:	3564
Operation Permit No.:	049-15736-00024
Permit Reviewer:	Craig J. Friederich

The Office of Air Quality (OAQ) has reviewed an application from Lau Industries Rochester Plant relating to the operation of a blower fan parts and housing manufacturing source.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) dip coating tank, identified as E-Coat Dip Coater, installed in 1996, exhausted through stack PR1, capacity: 150 blower fan parts per hour.
- (b) One (1) manual touch up paint spray booth, identified as Manual Spray Booth, equipped with HVLP spray applicators, and dry filters for PM overspray control, installed in 1996, exhausted through stack MT1, capacity: 12 blower fan parts per hour.
- (c) One (1) natural gas fired Dip Coater drying oven, identified as OV1, installed in 1996, exhausted to stack OB1, rated at: 5.00 million British thermal units per hour.
- (d) Three (3) ancillary deionized water rinse tanks, installed in 1996, exhausted to stack RO1.
- (e) One (1) spot welding process, containing two (2) welding stations, identified as 2X and 7X, installed in 1996. Station 2X consists of seven (7) spot welders and station 7X consists of two (2) spot welders. These welding operations do not use any wire. Spot welding uses heat to bond metal together.
- (f) One (1) forced air furnace, identified as MU-E, installed in September 1999, rated at: 1.87 million British thermal units per hour.
- (g) One (1) forced air furnace, identified as MU-W, installed in September 1999, rated at: 1.87 million British thermal units per hour.
- (h) One (1) forced air furnace, identified as MU-O, installed in September 1999, rated at: 0.18 million British thermal units per hour.

- (i) One MIG weld process, containing three (3) MIG welding stations, identified as 2x-mig, installed in March 2002, capacity: 1.049 pounds of metal wire per hour, each.
- (j) One (1) natural gas fired Maxon water heater, identified as WH-1, installed in 1996, exhausted to stack OB1, rated at 3.0 million British thermal units per hour.
- (k) One (1) natural gas fired Maxon water heater, identified as WH-2, installed in 1996, exhausted to stack OB1, rated at 3.8 million British thermal units per hour.

New Emission Units and Pollution Control Equipment

There are no new facilities/units requiring approval during this review.

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on June 13, 2002, with additional information received on August 26, 2002 and October 2, 2002.

Emission Calculations

See pages 1 through 6 of 6 of Appendix A of this document for detailed emissions calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	0.921
PM ₁₀	1.31
SO ₂	0.040
VOC	8.47
CO	5.78
NO _x	6.89

HAPs	Potential To Emit (tons/year)
TOTAL	Single less than 1.00 Combined less than 2.50

- (a) The potential to emit (as defined in 326 IAC 2-1.1-3) of all criteria pollutants qualifies this source as an Exempt operating status.
- (c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Fulton County.

Pollutant	Status
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Fulton County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR Part 52.21.
- (b) Fulton County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies)

- (a) Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), the particulate (PM) from the one (1) manual touch up paint spray booth, identified as Manual Spray Booth, shall be controlled by dry particulate filters, and the control device shall be operated in accordance with manufacturer's specifications.
- (b) The total particulate (PM) from the three (3) MIG welding stations, identified as 2x-mig, shall be limited to 4.92 pounds of PM per hour at a process weight rate of 2,625 pounds per hour using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Based on Appendix A, the potential PM emission rate is:

$$0.33 \text{ ton/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) = 0.0753 \text{ lbs/hr}$$

The PM emissions from the welding operations are 0.0753 pounds of PM per hour, which is less than the allowable of 4.92 pounds of PM per hour. Therefore, the welding operations are in compliance with this rule.

- (c) Any change or modification which will cause the potential to emit PM to increase to greater than 1.00 pound per hour, equivalent to 4.38 tons per year, from the three (3) MIG welding stations shall obtain prior approval from the IDEM, OAQ. This will ensure that the potential to emit PM from the entire source remains below five (5) tons per year.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating applied to the metal fan parts at the one (1) dip coating tank, identified as E-Coat Dip Coater, shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for extreme performance coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the calculations made, (see page 1 of 6 Appendix A), the one (1) dip coating tank, identified as E-Coat Dip Coater, is in compliance with this requirement.

- (b) The VOC applied to the applicators of the manual touch up paint spray booth, identified as Manual Spray Booth, installed in 1996, shall be limited to less than fifteen (15) pounds per day. Therefore, the requirements of 326 IAC 8-2-9 are not applicable. Compliance with this limit shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the day.

Conclusion

The operation of this blower fan parts and housing manufacturing source shall be subject to the conditions of the attached proposed Exemption 049-15736-00024.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Page 1 of 6 App A

Company Name: LAU Industries Rochester Plant
Address City IN Zip: 510 State Rd. 25 North
Exempt: 049-15736
Plt ID: 049-00024
Reviewer: Craig J. Friederich
Date: June 13, 2002

Products Used	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
E-coat																
PPG Ar 395 & Ap269	8.50	90.00%	89.2%	0.8%	91.0%	8.40%	0.07450	150.0	0.76	0.07	0.76	18.24	3.33	0.00	0.81	100%
Manual Spray Booth																
PPG W 43142 & W42850	8.06	71.91%	0.0%	71.9%	0.0%	28.11%	0.01563	12.000	5.80	5.80	1.09	26.08	4.76	0.46	20.62	75%
PM Control Efficiency										97.00%						
Uncontrolled											1.85	44.32	8.09	0.465		
Controlled											1.85	44.32	8.09	0.014		

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

HAP Emission Calculations

Page 2 of 6 App A

Company Name: LAU Industries Rochester Plant
Address City IN Zip: 510 State Rd. 25 North
Exempt: 049-15736
Plt ID: 049-00024
Reviewer: Craig J. Friederich
Date: June 13, 2002

	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % MIBK	Weight % MEK	Weight % Ethyl Benzene	Weight % Toluene	Xylene Emissions (tons/yr)	MIBK Emissions (tons/yr)	MEK Emissions (tons/yr)	Ethylbenzene Emissions (tons/yr)	Toluene Emissions (tons/yr)
E-Coat													
PPG Ar395	10.59	0.0373	75.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
PPG ap269	7.84	0.0053	42.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Manual Touch Up Spray Booth													
PPG W43142	8.92	0.0078	6.0	2.12%	17.44%	16.33%	0.66%	0.36%	0.04	0.32	0.30	0.01	0.01
PPG W42850	7.20	0.0078	6.0	4.69%	0.00%	14.84%	0.83%	12.38%	0.07	0.00	0.22	0.01	0.18
Individual Total									0.108	0.319	0.518	0.024	0.190
Overall Total									1.16				

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lbs/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100**

Page 3 of 6 App A

**Company Name: LAU Industries Rochester Plant
Address City IN Zip: 510 State Rd. 25 North
Exempt: 049-15736
Plt ID: 049-00024**

**Two Water Heaters (WH-1, WH-2) Reviewer: Craig J. Friederich
Three Air Furnaces (MU-E, MU-O, MU-W) Date: June 13, 2002
Dip Coater Drying Oven**

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

15.7200

137.71

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.131	0.523	0.0413	6.885	0.379	5.784

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 4 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Natural Gas Boiler
HAPs Emissions**

Page 4 of 6 App A

**Company Name: LAU Industries Rochester Plant
Address City IN Zip: 510 State Rd. 25 North
Exempt: 049-15736
Plt ID: 049-00024
Reviewer: Craig J. Friederich
Date: June 13, 2002**

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.45E-04	8.26E-05	5.16E-03	1.24E-01	2.34E-04

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	3.44E-05	7.57E-05	9.64E-05	2.62E-05	1.45E-04	0.130

Methodology is the same as page 3.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Welding and Thermal Cutting

Page 5 of 6 App A

Company Name: Lau Industries Inc. Rochester
Address City IN Zip: 510 State Road 25 North, Rochester, IN 46975
Exempt: 049-15736-24
Reviewer: Craig J. Friederich
Date: June 13, 2002

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS * (lb pollutant / lb electrode)				EMISSIONS (lb/hr)				TOTAL HAPS (lb/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
WELDING												
Submerged Arc	0	0		0.036				0.000	0	0.000	0	0.000
Metal Inert Gas (MIG)(ER5154)	3	1.049		0.0241	0.00003		0.00001	0.076	0.000107	0.000	0.0000315	0.000
Stick (E7018 electrode)	0	0		0.0211				0.000	0	0.000	0	0.000
Tungsten Inert Gas (TIG)(carbon steel)	0	0		0.0055				0.000	0	0.000	0	0.000
Oxyacetylene(carbon steel)	0	0		0.0055				0.000	0	0.000	0	0.000
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)				EMISSIONS (lbs/hr)				TOTAL HAPS (lb/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxyacetylene	0	0	0	0.1622	0.0005	0.0001	0.0003	0.000	0.000	0.000	0.000	0.000
Oxymethane	0	0	0	0.0815	0.0002		0.0002	0.000	0.000	0.000	0.000	0.000
Plasma	0	0	0					0.000	0.000	0.000	0.000	0.000
EMISSION TOTALS								PM = PM10	Mn	Ni	Cr	Total HAPs
Potential Emissions lbs/hr								0.08	0.00	0.00	0.00	0.00
Potential Emissions lbs/day								1.82	0.00	0.00	0.00	0.00
Potential Emissions tons/year								0.33	0.000	0.00	0.00	0.001

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column. Consult AP-42 or other reference for different electrode types.

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.

Plasma cutting emission factors are from the American Welding Society study published in Sweden (March 1994).

Welding and other flame cutting emission factors are from an internal training session document.

See AP-42, Chapter 12.19 for additional emission factors for welding.

Company Name: LAU Industries Rochester Plant
Address City IN Zip: 510 State Rd. 25 North
Exempt: 049-15736
Plt ID: 049-00024
Reviewer: Craig J. Friederich
Date: June 13, 2002

Summary of Emissions

Uncontrolled Potential Emissions

Emission Unit	PM (tons/yr)	PM-10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	HAPS (tons/yr)
E-Coat Dip Coater	0.000	0.000	0.000	0.000	3.33	0.000	0.00
One (1) Touch-Up Booth	0.460	0.460	0.000	0.000	4.76	0.000	1.16
Natural Gas Combustion	0.131	0.523	0.040	6.89	0.379	5.78	0.130
Welding	0.330	0.330	0.000	0.000	0.000	0.000	0.001
Total	0.921	1.31	0.040	6.89	8.47	5.78	1.29

Controlled Emissions (Including All Limits)

Emission Unit	PM (tons/yr)	PM-10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	HAPS (tons/yr)
E-Coat Dip Coater	0.000	0.000	0.000	0.000	3.33	0.000	0.000
One (1) Touch-Up Booth	0.014	0.014	0.000	0.000	less than 2.73	0.000	1.16
Natural Gas Combustion	0.131	0.523	0.040	6.89	0.379	5.78	0.130
Welding	0.330	0.330	0.000	0.000	0.000	0.000	0.001
Total	0.48	0.87	0.04	6.89	Less than 6.44	5.78	1.29